

Attorney Docket No.: J3672(C)
Serial No.: 10/518,320
Filed: August 17, 2005
Confirmation No.: 6742

REMARKS

The subject amendment accompanies the filing of a Request for Continued Examination of the subject application. Entry thereof is respectfully requested.

Responsive to the 35 U.S.C. 112 rejection applied thereto, in particular, the objection to the phrase "**aqueous** dispersed phase(s)" as lacking antecedent basis, claim 1 has been amended to clarify that the w/o emulsion antiperspirant composition comprises an oil continuous phase and **at least one aqueous dispersed phase**, and that the dissolved antiperspirant salt is in **an aqueous dispersed phase**, and that the polymer comprising Bronsted acid groups is in a phase separate from that of the dissolved antiperspirant salt. See, for example, page 4, lines 16 to 17; page 5, lines 7 to 8; page 3, lines 1 to 3 and 20 to 23. Consistent with the amendment of claim 1, claim 2 has been amended to refer to the oil continuous phase as "the oil continuous phase", and claim 3 has been amended to specify that the aqueous solution of polymer comprising Bronsted acid groups being emulsified as a separate **aqueous** dispersed phase. See, for example, page polymer. Claims 9 and 10 have been amended to refer to the w/o emulsion composition as "a w/o emulsion composition as described in claim 1". New claim 13, depending from claim 1, specifies that the proportion of aqueous dispersed phase(s) within the total composition is from 70% to 90% by weight excluding any volatile propellant that may be present. See, for example, page 5, lines 8 to 15.

Pursuant to the Office Action of March 12, 2009, claims 1-7 and 9-12 stand rejected under 35 U.S.C. 103(a) over Cai et al. (US 6,451,295) in view of Rieley et al. (US 2002/0119108). This rejection is respectfully traversed.

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The subject invention is directed to water-in-oil antiperspirant compositions that are characterized as having one or more aqueous dispersed phases and a continuous oil phase, wherein the proportion of aqueous dispersed phase(s) in the composition is from 50% to 90% by weight, excluding any volatile propellant that may be present. The compositions are further characterized as comprising a dissolved antiperspirant salt (the dissolved antiperspirant salt being present in an aqueous dispersed phase), an emulsifier and a polymer comprising Brønsted acid groups. The polymer comprising Brønsted acid groups is present in a phase separate from that of the dissolved antiperspirant salt. Such polymer can be suspended as a solid in the oil continuous phase (as in claim 2) or can be present as an aqueous solution emulsified as a separate aqueous dispersed phase.

Cai et al. is directed to clear antiperspirants and deodorants, more particularly to clear antiperspirant and deodorant sticks made with siliconized polyamides, a silicone fluid and at least one non-silicone emollient. The siliconized polyamide functions as a gelling agent and is present in the Cai et al. compositions in an amount of from 8 to 18% by weight. The siloxane units of the siliconized polyamide are said to provide compatibility with the silicone fluid, while the amide linkages and the spacing and selection of the locations of the amide linkages are said to facilitate gellation and the formation of cosmetic products. In short, the patent relies on a very specific gelling agent to achieve gellation in the compositions therein disclosed. **There is nothing in Cai et al. that discloses or suggests the use of a polymer comprising Brønsted acid groups as required by the subject claims.**

Rieley et al. does disclose polymers comprising Brønsted acid groups, however, the use thereof is in a product in which the polymer is physically separate from the antiperspirant salt prior to application. To achieve this "separation" of polymer and antiperspirant salt, Reiley et al. discloses (a) the co-application of the

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polymer and antiperspirant salt from separate compositions and (b) the use of a non-interacting mixture of AP salt and polymer such as co-dispersions of the AP salt and polymer in a non-solvent carrier material. At page 3, paragraph [0047] to page 4, line [0048] Rieley et al., describing suitable carrier materials for the antiperspirant salt and/or polymer components of its compositions, states:

The carrier material may be a hydrophobic or hydrophilic, solid or liquid. Preferred carrier materials are hydrophobic... Hydrophobic liquid carrier materials particularly suitable for use are liquid silicones, that is to say, liquid polyorganosiloxanes...

Hydrophilic liquid carrier materials that may be used include water and polar organic solvents. When water is used as a carrier material for the polymer and or the antiperspirant salt, it is strongly preferred that the polymer and the antiperspirant salt are applied from independent compositions. This ensures that premature interaction does not occur between the components... (Emphasis added).

It is respectfully submitted that one skilled in the art reading Rieley et al. would not be motivated to employ a polymer comprising Brønsted acid groups in the Cai et al. compositions. As noted above, Cai et al. is specific to the use of a particular polymer whose functionality is configured to promote compatibility with its silicone component and to increase gellation in the system therein disclosed. Additionally, the polymers of Cai et al. and Rieley et al. are structurally very different and would not be considered chemical equivalents. Given the specific requirements set forth in Cai et al. with respect to its siliconized gelling agent, one skilled in the art would not be led to substitute the polymers of Rieley et al. for same in the compositions therein disclosed. Moreover, Rieley et al. provides a very clear teaching away from the use of its polymer together with an antiperspirant salt in compositions that include an internal aqueous phase disclosing that in such a situation the polymer and antiperspirant salt should be applied from separate compositions. Accordingly, it is respectfully submitted that water-in-oil compositions as described by the subject

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claims, which compositions comprise an antiperspirant salt dissolved in an aqueous phase and that further comprise a polymer comprising Brønsted acid groups in a separate phase (which may be a separate **aqueous** phase) of the same composition are not disclosed or rendered obvious to one skilled in the art reading Rieley et al. and Cai et al.

In view of the foregoing amendments and remarks, reconsideration and allowance of the subject claims is respectfully requested.

At page 2, paragraph [0018] Reiley et al. discloses:

In a particular aspect of the present invention, compositions comprising a non-interacting mixture of the AP salt and the polymer are essentially non-aqueous compositions. Essentially non-aqueous compositions comprise less than 10% by weight water, preferably less than 5% by weight of water, and most preferably less than 1% by weight of water, excluding any water of hydration associated with the AP salt. In addition to being essentially non-aqueous, many compositions comprising both the AP salt and the polymer comprise less than 20% or even less than 10% by weight of polar organic solvents, for example C₂ to C₄ alcohols (monohydric or polyhydric), like ethanol.

The compositions of Cai et al. are water-in-oil or water with glycol and oil emulsions, which in which, as a percentage of the total weight of the composition, the "water" phase is present in an amount of 20-60% and the oil phase is present in an amount of 20-80%. Cai et al. discloses that its compositions have a water content below 25% by weight based on the weight of the entire composition, and that its external oil phase includes a silicone fluid. See column 6, lines 4 to 14 and column 6 line 54 to column 7 line 63, in particular column 7, lines 62 to 63. At column 18 to 49 Cai et al. states:

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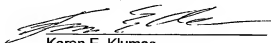
It has also been found that when water is used as the internal phase (in a solution of water and antiperspirant active) the cracking and/or crumbling of the formula is the most severe and the cosmetic composition itself has more drag upon application to the skin. As the amount of water is increased the stick form is more brittle. In contrast to this when a non-water or a reduced water system is used as the internal phase (such as propylene glycol, also in a solution containing antiperspirant active), the brittleness of the cosmetic composition decreases. Thus, it is preferred to use a non-water internal phase such as propylene glycol in an amount of 5-50%, more preferably from 35-45%. In addition, other thickeners, such as one or more of silica, dibenzylidene sorbitol (only in anhydrous systems), and polyvinyl alcohol may be added to the propylene glycol or water in the internal phase containing antiperspirant active; such additional ingredients will also help to enhance the strength of the final composition.

In contrast, claim 13 specifies that the proportion of aqueous dispersed phase(s) is from 70% to 90% by weight of the composition (excluding volatile propellant).

In view of the foregoing amendments and remarks, reconsideration and allowance of the subject claims as hereby amended is respectfully requested.

If a telephone conversation would be of assistance in advancing the prosecution of the present application, applicants' undersigned attorney invites the Examiner to telephone at the number provided.

Respectfully submitted,



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